Census 2000 PHC-T-40. Estimated Daytime Population and Employment-Residence Ratios: 2000

Technical Notes On The Estimated Daytime Population

The Concept of the Daytime Population

In general, the concept of the daytime population is a measure of the number of people who are present in an area during normal business hours. This is in contrast to the population present during the evening and nighttime hours. Some areas, for example employment centers, may contain few residents, so their nighttime population may be quite small. However, these areas may swell substantially during the day, as thousands of people arrive to work there. Conversely, other areas such as those often described as bedroom communities, may see one-half or more of their residents leave the area in the morning to travel to their jobs, with no correspondingly large inflow of workers into the area. The expansion or contraction experienced by different communities between nighttime and daytime is important information for many planners, including those involved with transportation, disaster, and relief planning.

There are many reasons or purposes for which people leave the area they live in and travel to another area. These trips may occur at any time during the day or night. For example, people travel for work, school, shopping, health care, recreation, tourism and a myriad of other activities. However, the sources of data on these trips, particularly sources that cover all areas of the nation, are very limited. In fact, the only readily available data relate to travel into and out of areas for work purposes. Therefore, the estimates of daytime population released by the Census Bureau only reflect or adjust populations based on travel to work. Similarly, no attempt has been made to restrict the adjustment to people commuting during certain hours. All worker-related travel, no matter what time of day it occurs, has been used in these estimates of daytime population.

Geographic Areas Available

Table 1 is a summary table presenting data for a selection of places, grouped into nine size categories. For the first three categories, every place in the size range is shown. For the remaining six categories, only the first 20 places based on the percent increase in daytime population are shown in Table 1.

Data are provided in Table 2 for the United States, states, counties and county equivalents by state, the District of Columbia, Puerto Rico, and the municipios in Puerto Rico.

Table 3 contains data for places in the United States by state, both incorporated places and census designated places (CDP), if the place contained either 2,500 workers living there or 2,500 workers working there according to Census 2000 results.

Technical Definition of a "Worker"

In many places in the discussion and data tables on the daytime population the term "worker" is used. A worker is defined in these instances in the same manner as in Census 2000 data on place of work, means of transportation to work, or the other journey to work items. The technical definition of a worker for these purposes is a person 16 years old or over who was employed and at work during the reference week. The reference week is the week prior to the time that the census form was filled out or the census data were collected.

The phrase "employed and at work" means that the person not only had to have a job, but must also have worked at that job for at least one hour during the preceding week. This excludes a small percentage of the population (about 2 percent nationwide) that had a job but did not report for work during the reference week because they were sick, on vacation, or absent from work for the entire week for some other reason.

The concept of a worker is different than the concept of employed persons that is used in other census data items. The employed persons concept includes people who had a job, even if they did not work at all during the preceding week.

Lastly, data on workers includes people in the Armed Forces as well as those in the civilian population, as long as they meet the other criteria such as working during the reference week. This is again in contrast with other census data that are tabulated for the universe of civilian employed persons, which excludes members of the Armed Forces.

Descriptions of the Fields Available in the Estimated Daytime Population Release

The information below explains the data items, by column number, included in the three daytime population estimate tables.

Column 1, FIPS state code – the two-digit code used in the Federal Information Processing Standards to identify each state.

Column 2, FIPS county code (Table 2 only) – the three-digit code used in the Federal Information Processing Standards to identify each county or county equivalent within each state.

Column 2, FIPS place code (Tables 1 and 3) – the five-digit code used in the Federal Information Processing Standards to identify each place, both incorporated places and census designated places (CDP), within each state.

Column 3, Total resident population – the total number of persons living in the area, as shown in Census 2000 100-percent data such as Summary File 1.

Column 4, Total workers working in the area (Table 2) or place (Tables 1 and 3) – this is the number of workers who reported working in the area or place, regardless of their place of residence. In other words, it is the total that worked there no matter where they

lived. Residence locations are not considered, only workplace locations are reflected in this number.

Column 5, Total workers living in the area (Table 2) or place (Tables 1 and 3) – this is sometimes referred to as the number of resident workers. It is the number of people living in the area/place who are workers. It includes workers who live there regardless of where they worked, or in other words, no matter where their workplace was located. Place of work location is not considered, only residence location is reflected in this number.

Column 6, Estimated daytime population – this is the estimate arrived at by adjusting the total resident population by the number of incommuters and outcommuters to the area/place, using data from Census 2000. It does not adjust for people entering or leaving the area/place for purposes other than commuting, nor does the commuting adjustment take the time of day of the work trips into account. The estimate is calculated by adding the total resident population (col. 3) and the total workers working in the area/place (col. 4), and then subtracting from that result the total workers living in the area/place (col. 5). This method is computationally simpler and yields the same result as would be obtained by adding the incommuters and subtracting the outcommuters from the total resident population, since two more operations are required to arrive at the number of in- and out-commuters.

Column 7, Daytime population change due to commuting: number – this is the numeric increase or decrease in the population of the area/place as a result of work-related commuting. It is the net change in the population of the area/place due to work travel and is computed by subtracting the total resident population (col. 3) from the estimated daytime population (col. 6). Positive numbers indicate more incommuters entering the area/place than leaving it. Negative numbers occur when more workers leave the area/place to go to work than enter it to come to work.

Column 8, Daytime population change due to commuting: percent – this is the percentage increase or decrease in the population of the area/place as a result of work-related commuting. It is calculated by dividing the numeric change due to commuting (col. 7) by the total resident population (col. 3), and multiplying the result by 100. Positive figures denote the percentage increase in population experienced by the area or place, while negative numbers show the percentage decrease in population in the area/place as a result of commuting.

Column 9, Workers who lived and worked in the same county/place: number – this value shows how many workers who lived in a particular county or place also worked in that same county or place. It is derived from place of residence location information and responses to the question on workplace location during the week prior to filling out the census questionnaire.

Column 10, Workers who lived and worked in the same county/place: percent – this measure is sometimes used as an indicator of worker retention, but it does not reflect variation in area size (some counties cover a large area while others are small) or other

attributes very well. It is computed by dividing the number of workers who lived and worked in the same county or place (col. 9) by the total workers living there (col. 5) and multiplying the result by 100.

Column 11, Employment-residence (E-R) ratio – this is a measure of the total number of workers working in an area or place (col. 4), relative to the total number of workers living in the area or place (col. 5). It is often used as a rough indication of the jobs-workers balance in an area, although it does not take into account whether the resident workers possess the skills needed for the jobs that are available. E-R ratios greater than 1.00 occur when there are more workers working in the area than living there. These areas can be considered as net importers of labor. For example, an E-R ratio of 1.19 means that there are 19 percent more workers working in the area than living in the area. Values less than 1.00 indicate areas that send more workers to other areas than they receive, i.e., they are net exporters of labor.